

Date: Thu, 11 Mar 93 18:12:01 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #308
To: Info-Hams

Info-Hams Digest Thu, 11 Mar 93 Volume 93 : Issue 308

Today's Topics:

 1296 Repeater
ALERT: Major Solar Flare Alert - 11 March
 Ham Radio Outlet incident (2 msgs)
 Just for fun . . . someone's screw up
 mods for DJ162T
 Motorola Radios Are/Were Tough
 Squeeling and sqwaking ICW2A
 TM741A manual project
 VHF Car Antenna: 1/2 or 1/4 wave??
 W9GR DSP Filter shipping

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 11 Mar 93 23:17:17 GMT
From: news-mail-gateway@ucsd.edu
Subject: 1296 Repeater
To: info-hams@ucsd.edu

A group of fellow amateurs have decided to put up a repeater on 1296 in this
area.

We have looked into the various consumer (Icom, Yeasu Hamtronics etc) repeaters
but none of them seem very well done and are extreemly pricie.

The question arose, about any military or commercial surplus. Does any one have
any recommendations for surplus gear that can be converted to repeater
operation (ala GEmaster exec) Does Motorola or GE or any one else have
commercial gear near this frequency.

Any suggestions would be greatly appreciated.

73

Don

Date: 12 Mar 93 01:42:40 GMT
From: news-mail-gateway@ucsd.edu
Subject: ALERT: Major Solar Flare Alert - 11 March
To: info-hams@ucsd.edu

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MAJOR SOLAR FLARE ALERT

ISSUED: 23:30 UT, 11 MARCH

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* No Impact Expected *

MAJOR ENERGETIC EVENT SUMMARY:

(All times are valid for the UT day of 11 March)

Flare Size: Class M7.3/1N

Location: N16E68 (Region 7448)

Tenflare: None reported.

SESC Times: Begin=11/2143 UT, Peak=11/2201 UT, End=11/2203 UT

(SESC Times are based on a half-power-point system)

Sweeps: Type II (Importance 3). Estimated Shock speed: 900 km/sec

Protons: None observed or expected.

PRELIMINARY X-RAY TIME PROFILE DATA AND ESTIMATED STATISTICS:

BEGIN (XRAY)	MAX (XRAY)	END (XRAY)	DURATION	INTEG. FLUX	SWF DUR.
-----	-----	-----	-----	-----	-----
2154 (C2.6)	2202 (M7.3)	2214 (C9.3)	020 MIN.	0.039 J/m ²	017 min

NOTE: The xray time profile data above is not based on the half-power-point system, but is intended to give a general idea of the duration of the entire event, from the start to the end when xrays fall below M-class levels. Integrated x-ray flux covers the interval from start to end.

SYNOPSIS:

Region 7448 was responsible for an impulsive major class M7.3/1N flare at 22:01 UT. This region has been classified as an F-type spot group, although there is some question regarding this. The region is still rotating around the limb and into view. It is therefore difficult to determine the characteristics of the region. It is a new region which formed on the far side of the sun and does not appear to be the return of an old region.

The x-rays from this event were typical of an impulsive flare. A major Type II sweep accompanied the event. The estimated shock speed of derived from the Type II sweep was 900 km/second. The sweep lasted about 14 minutes (from 2157Z to 2211Z). It is unknown whether this region may be capable of producing further major flares.

A moderate SWF was observed on the HF bands, affecting frequencies as high as approximately 12 to 15 MHz. The SWF was brief, however.

POTENTIAL TERRESTRIAL IMPACT ASSESSMENT:

The following tables depict the preliminary estimated potential for terrestrial impacts in various categories. These tables are valid only for the flare described and do not include assessments for previous influential flare events.

POTENTIAL MAGNITUDE OF DISTURBANCE

HIGH : 0 %
MODERATE : 0 %
LOW : 15 %
NONE : 85 %

OVERALL ARRIVAL PROBABILITY : 20 %

ESTIMATED WINDOW OF SHOCK ARRIVAL IF SHOCK ARRIVES

MINIMUM	EARLY	PREFERRED	LATE	MAXIMUM
___/___ UT	___/___ UT	___/___ UT	___/___ UT	___/___ UT
MARCH	MARCH	MARCH	MARCH	MARCH
5 %	45% PROBABILITY		45% PROBABILITY	
5 %	45% PROBABILITY		45% PROBABILITY	

<pre> ----- POTENTIAL FOR >10 MEV PROTONS ----- HIGH FLUX : 0 % > 100 PFU MODERATE FLUX : 0 % > 10 PFU LOW FLUX : 0 % > 1 PFU NONE :100 % <= 1 PFU ----- OVERALL ARRIVAL PROBABILITY: 5% ----- EST. POTENTIAL GEOMAGNETIC IMPACT ----- SEVERE STORM : 0 % MAJOR STORM : 0 % MINOR STORM : 5 % ACTIVE OR LESS : 95 % ----- PROBABLE SI ASSOCIATION : 35 % </pre>	<pre> ----- POTENTIAL FOR >100 MEV PROTONS ----- HIGH FLUX : 0 % > 100 PFU MODERATE FLUX : 0 % > 10 PFU LOW FLUX : 0 % > 1 PFU NONE :100 % <= 1 PFU ----- OVERALL ARRIVAL PROBABILITY: 0 % ----- EST. POTENTIAL IONOSPHERIC IMPACT ----- LOW LATITUDES : NONE EXPECTED MIDDLE LATITUDES : NONE EXPECTED HIGH LATITUDES : NIL - MINOR POLAR LATITUDES : NIL - MINOR ----- ESTIMATED GLOBAL IMPACT: NONE EXPECTED </pre>
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ESTIMATED POTENTIAL DURATION OF DISTURBANCE AFTER ARRIVAL: NIL TO 24 HOURS

EST. PROBABILITY FOR GEOSYNCHRONOUS SATELLITE MAGNETOPAUSE CROSSINGS: 5%

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Date: 11 Mar 1993 21:31:57 GMT
From: sun-barr!news2me.EBay.Sun.COM!exodus.Eng.Sun.COM!appserv.Eng.Sun.COM!
concertina!fiddler@decwrl.dec.com
Subject: Ham Radio Outlet incident
To: info-hams@ucsd.edu

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Other than sometimes being treated as a nonperson (we're studying for our first tickets at home now), not yet being an amateur operator, my only significant gripe with HRO is their working hours.

They open up an hour or two after I have to be at work, and close about the time that I can usually get away. Even banks are staying open these days longer than 10 to 5. At least part of the time.

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| Some things are too important not to give away |

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| to everybody else and have none left for yourself. |
|----- Dieter the car salesman-----|

Date: Fri, 12 Mar 1993 01:18:43 GMT
From: usc!howland.reston.ans.net!usenet.ins.cwru.edu!neoucom.edu!
wtm@network.UCSD.EDU
Subject: Ham Radio Outlet incident
To: info-hams@ucsd.edu

The HRO catalog is at least good for one thing: it has much more
detailed information on the products than the AES catalog.

--

Bill Mayhew NEOUCOM Computer Services Department
Rootstown, OH 44272-9995 USA phone: 216-325-2511
wtm@uhura.neoucom.edu (140.220.1.1) 146.580: N8WED

Date: Thu, 11 Mar 1993 23:33:04 GMT
From: usc!howland.reston.ans.net!gatech!taco!djbarnes@network.UCSD.EDU
Subject: Just for fun . . . someone's screw up
To: info-hams@ucsd.edu

In article <1no0f8INN9i@network.ucsd.edu>, brian@ucsd.edu (Brian Kantor) writes:
> spady@bcstec.ca.boeing.com (Robyn Spady) writes:
> >well over an hour, two men had their mike keyed on channel 16 and tied up all
> >use of that channel . . .
>
> >I hope they are able to track these buffoons down! I would even like it
> >better if their wives could hear what they were saying about them ;-)
>
> Sounds to me like you're more pissed off at what was being discussed
> than that the channel was jammed. Would you be so angry and righteous
> if all you'd heard was the vessel's engine noise for over an hour?

I disagree....sounded to me that he was right in being pissed off about the
fact that there were stranded boaters who couldn't get help because of those
guys and it made it worse that they were talking about something totally
useless.....

>
> Seems to me the more appropriate thing to do is to get a regulation
> passed that requires a 5 minute maximum transmission length timer in
> the radio!

Then what happens.....you can't talk anymore? Or do you just hit the button again and keep at it?

Just wondering.....

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*****
Donald Barnes      |           "You can think about it, but don't
djbarnes@eos.ncsu.edu |
Computer Engineering |
N.C. State University |           do it."--Smokey
*****
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Date: Thu, 11 Mar 1993 22:42:00 GMT
From: usc!zaphod.mps.ohio-state.edu!hobbes.physics.uiowa.edu!news.uiowa.edu!
news.weeg.uiowa.edu!vaxa.weeg.uiowa.edu!gcohen@network.UCSD.EDU
Subject: mods for DJ162T
To: info-hams@ucsd.edu

Well the subject is clear enough. I would like to know where I can find
the modification sheet for this.
thanks in advance

Date: 11 Mar 93 18:04:28 EST
From: titan.ksc.nasa.gov!titan.ksc.nasa.gov!news@ames.arpa
Subject: Motorola Radios Are/Were Tough
To: info-hams@ucsd.edu

Here's a little story that happened some years ago when I worked for
Motorola:

Motorola has always been proud of their product testing and the quality of
the products that result from this testing. Motorola decided to show off
their product testing lab to members of a local QA society one night, but
before the meeting there was a "happy hour" at the Holiday Inn across the
street and some of the people got very happy. Later, when the group entered
the plant one of the Motorola managers spied a portable radio on the security
guard's desk. To show how tough it was he picked it up and hurled it
across the room where he expected it to land on the carpeted floor.
Unfortunately, he put a little too much effort into the throw. The radio
flew across the room, through an open door, and into the stairwell where
it hit the edge of a step and exploded into pieces! I hate when that happens!

--

Bill Mayhew NEOUCOM Computer Services Department
Rootstown, OH 44272-9995 USA phone: 216-325-2511
wtm@uhura.neoucom.edu (140.220.1.1) 146.580: N8WED

Date: 11 Mar 93 14:34:52 CST
From: usc!howland.reston.ans.net!zaphod.mps.ohio-state.edu!caen!
kuhub.cc.ukans.edu!baxter@network.UCSD.EDU
Subject: TM741A manual project
To: info-hams@ucsd.edu

Awhile back, someone posted an article describing a project to write
a detailed TM741A manual, describing all the different mods, etc...
Has this project been finished? Is it still being worked on?
Is there an FTP site with this "manual" available?

Thanks, Kirk N0FPZ

Date: Fri, 12 Mar 1993 01:10:14 GMT
From: usc!wupost!spool.mu.edu!torn!csd.unb.ca!UNBVM1.CSD.UNB.CA@network.UCSD.EDU
Subject: VHF Car Antenna: 1/2 or 1/4 wave??
To: info-hams@ucsd.edu

Hi,

I'm looking into buying an antenna for my car, but I can't decide if I
should be a 1/2 or 1/4 wave antenna. I know that I'll get a better
transmission on a 1/2 wave, but the antenna would be over 3 feet long!
(That's almost the same height as my car, and I don't want my car to
look like a mobile tower)

So my question is: Is there a BIG difference between a 1/2 wave and
a 1/4 wave car antenna?

For those who need to know:
- my radio is an Alinco DJ-580. (~2 watts)

Thanks,

Paul Cormier
VE1POL

.....
| Y6HJ@unb.ca <or> Y6HJ@jupiter.sun.csd.unb.ca |
| FidoNet: (1:255/20) Data: (506)735-3831 [v32b] |
|.....

Date: Thu, 11 Mar 1993 20:22:50 GMT
From: usc!cs.utexas.edu!csc.ti.com!tilde.csc.ti.com!fstop.csc.ti.com!
linnig@network.UCSD.EDU
Subject: W9GR DSP Filter shipping
To: info-hams@ucsd.edu

Well,

I got my W9GR DSP filter kit in the mail last week. I guess Texas Instruments made good on their promise to W9GR and got him some DSP's.

Includes nice looking board and clear instructions.

I'm looking forward to getting it working.

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- - - - - + - - - - - +
Mike Linnig, Texas Instruments Inc. | 97.43% of all statistics are made |
Phone: (214) 575-3597 CALL: N5QAW | up; most of them (83.6 percent) |
Internet: mike.linnig@dseg.ti.com | are wrong. |
- - - - -

Date: Thu, 11 Mar 1993 22:01:52 GMT
From: pacbell.com!att-out!cbfsb!cbnews!cbnewsm!jeffj@network.UCSD.EDU
To: info-hams@ucsd.edu

References <9303101358.AA07555@ucsd.edu>, <jzjt6=f@dixie.com>,
<cole.109.731876607@soldev.tti.com>
Subject : Re: Ham Radio Outlet incident

In article <cole.109.731876607@soldev.tti.com> cole@soldev.tti.com (Randy Cole) writes:

>In article <jzjt6=f@dixie.com> jgd@dixie.com (John De Armond) writes:
>>

>>>Volunteers? Why do i find this hard to believe? I would think the regular
>>>paid employees would revolt over this. I know I'd be not happy to know that
>>>my services as a salesman, something I would get compensated to do, is done
>>>for free on the weekends. I'd want those commissions. Letting the volunteers
>>>sell on the weekends would just devalue my worth to the owner - since he can
>>>get my job done for free.

>>

>>I'll give you a tip as to why: The HRO store here in Atlanta also uses

>>non-paid volunteers. What a concept? Letting the kids play in the
>>toy store.
>
>What a concept? WHAT A RIPOFF!
>
>1. It isn't fair to a competitor who tries to pay his employees a decent
>living wage.
>
>4. It isn't fair to HRO's paid employees who have to work with people
>who aren't particularly accountable to management, and may have to
>spend extra time and effort training volunteers and fixing their
>mistakes. This is in addition to the points Bill Newkirk made.
>
>5. It isn't fair to people who could use a job.

The guys that work (volunteer) at HRO for free are idiots! Let's see
I work 40 hours this week and then out of the goodness of my heart I
work 8 more? Mean while the owner sits around and gleefully enjoys
my stupidity as he pulls in more profits. Gee, Jeff, you did such
a good job handling that big rush today that I'll give you a \$5 discount
on that next HT you buy. His salesmen who doesn't make enough to support
his family on what he earns there loses even more money. The owner
really benefits in various ways, no commisions, no wages, no social
security and the hidden threat of he can always replace them with
a "volunteer". Let's see,

| | |
|---|----------------------|
| 2 salesmen at \$8.00/hr for 8 hours each. | \$128 |
| No commisions paid. | \$100 (Just a guess) |
| Multiply by 4 | \$912 |
| Multiply by 12 | \$10,944 |

For some reason I can see why he has volunteers on weekends and why
they are such idiots. 8-)

Jeff

--

| | | |
|---------------------------|--|---|
| Jeff Jones AB6MB | | OPPOSE THE NORTH AMERICAN FREE TRADE AGREEMENT! |
| jeffj@seeker.mystic.com | | Canada/USA Free Trade cost Canada 400,000 jobs. |
| Infolinc BBS 415-778-5929 | | Want to guess how many we'll lose to Mexico? |

Date: Thu, 11 Mar 1993 23:44:03 GMT
From: usc!howland.reston.ans.net!gatech!kd4nc!ke4zv!gary@network.UCSD.EDU
To: info-hams@ucsd.edu

References <1993Mar10.001803.8474@convex.com>, <14570689@hpnmdla.sr.hp.com>,
<1993Mar11.170210.24828@odin.corp.sgi.com>

Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: source for spools of wire

In article <1993Mar11.170210.24828@odin.corp.sgi.com> adams@chuck.dallas.sgi.com
(Charles Adams) writes:

>
>i have, and i'm sure other people on the net have, code (programs, not
>morse :-)) that will compute the sag, tension at the end points, etc.
>for a wire supported at the ends (with and without intermediate support
>points). i haven't used the code in 20 years, it uses finite element
>modeling to generate the sag, etc. in a wire of arbitrary length and
>given density.

>someone give me the density for various sizes. please.

Straight from the trusty ARRL Antenna Book:

| Gauge | Recomended tension | | Weight pounds/1000 feet | |
|-------|--------------------|--------|-------------------------|--------|
| | copperweld | copper | copperweld | copper |
| 4 | 495 | 214 | 115.8 | 126.0 |
| 6 | 310 | 130 | 72.9 | 79.5 |
| 8 | 195 | 84 | 45.5 | 50.0 |
| 10 | 120 | 52 | 28.8 | 31.4 |
| 12 | 75 | 32 | 18.1 | 19.8 |

Note that the NEC Section 225-6(a)(1) prohibits spans greater than 50 feet
with wires smaller than 8 gauge unless supported by a messenger wire.

Gary

--

| | | | | |
|-----------------------------|--|--------------|--|--------------------------|
| Gary Coffman KE4ZV | | You make it, | | gatech!wa4mei!ke4zv!gary |
| Destructive Testing Systems | | we break it. | | uunet!rsiatl!ke4zv!gary |
| 534 Shannon Way | | Guaranteed! | | emory!kd4nc!ke4zv!gary |
| Lawrenceville, GA 30244 | | | | |

Date: 12 Mar 93 01:14:49 GMT
From: news.tek.com!tekig7!tekig6!royle@uunet.uu.net
To: info-hams@ucsd.edu

References <1993Mar8.130739.1@utxvms.cc.utexas.edu>, <9124@tekig7.PEN.TEK.COM>,
<fred-mckenzie-110393161252@k4dii.ksc.nasa.gov>
Subject : Re: A pair of coax <-> ladder line ???

>In article <9124@tekig7.PEN.TEK.COM>, royle@tekig6.PEN.TEK.COM (Roy W
>Lewallen) wrote:

>>All else being equal, the fraction of power lost
>> is inversely proportional to line impedance.

>Roy-

>This is only true to a point. From school 25 years ago, I recall
>derivations concerning transmission lines with regard to "maximum power
>handling capability" and "minimum loss". It seems that there is a specific
>value for each.

>In the case of minimum loss Co-Ax, the value was about 72 ohms for air
>dielectric, and about 52 ohms for polyethylene dielectric. The optimum
>value related to the ratio of diameters rather than impedance. I don't
>recall any other details, but the information is probably available in most
>college transmission lines textbooks.

>[other info deleted]

>73, Fred, K4DII

>fred-mckenzie@ksc.nasa.gov

Fred,

Thanks for commenting. I'm familiar with the "minimum loss" and "maximum power" analyses. I wasn't clear enough in my statement of "all else being equal". The classical analyses assume a fixed outer cable diameter. However, I was trying to compare open-wire line with coax, so that's obviously not an appropriate assumption. Let's compare two open wire lines made from the same diameter wire, but with different spacings so that the characteristic impedances are different. Terminate each with its characteristic impedance and apply the same power to each. The losses in the lines will be inversely proportional to their characteristic impedances, simply because less current will flow on the higher-impedance line. The simple derivation is given below. Two pieces of coax made into a balanced line can be compared on the same basis. If the inner conductor of the coax has the same diameter as the balanced line wires, the matched loss will be inversely proportional to the ratio of the open line characteristic impedance to twice the impedance of the coax. Remember that all this is a derivation of *matched* loss and assumes negligible loss in the dielectric or in the coax shield.

r = (rf) resistivity per unit length of wire
l = length of one conductor
I = rms current on each conductor

P = total power applied
p = power lost per conductor
Z0 = characteristic impedance of line

$P = I^2 * Z_0$
 $p = I^2 * r * l$
so
 $p/P = \text{fraction of power lost per conductor} = r * l / Z_0$

Roy Lewallen
W7EL
royle@tekig6.pen.tek.com

Date: Thu, 11 Mar 1993 23:55:27 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!ttinews!harley!
paulb@network.UCSD.EDU
To: info-hams@ucsd.edu

References <C3KtDs.3Ct@news.ysu.edu>, <47540022@hpcuhe.cup.hp.com>,
<1n16uhINN51o@topaz.bds.com>
Subject : Re: Help!, mobile noise

In article <1n16uhINN51o@topaz.bds.com> ron@topaz.bds.com (Ron Natalie) writes:
+What kinds of food go well with alternator wine?

That depends on whether you want a ham-style meal or an auto-style meal.

For a ham-style meal, there is:

RIGatoni
Heath bar
Chickenwood
Chopped Ya-suey
tuner fish
antenna beverage
fish with CHIPS

If you prefer auto-style, there is:

Wheel Cordon Bleu
Drumstick Brakes
Pinto Beans
Glass of waterpump
dash of spices
enGIN
The Club soda

Thunderbird
throttle saugae links
ROLLS royce

Surf Interstate 405!

Paul Blumstein, paulb@harley.tti.com, DoD #36, ABATE, AMA, HOG, KD6LAA
Transaction Technology, Inc., Santa Monica, CA

End of Info-Hams Digest V93 #308
